

To: Northeast Implementation Team

From: Amy Knowlton and Bruce Russell, co-chairs

Re: Report of the Ship Strike Subcommittee meeting March 21, 2000

In attendance at the meeting were: Bruce Russell and Amy Knowlton, co-chairs, Brad Wellock-Massport, Bill Eldridge-MSC/Peabody and Lane, Joe Murphy-Mass Maritime Academy, Joe Pelzarski-Coastal Zone Management, Ross Pope-Moran Shipping Agency, Richard Goddard-Kent Line Ltd., Katrina Van Dine-Stellwagen Bank NMS, Moira Brown-Center for Coastal Studies/East Coast Ecosystems, Sharon Young-Humane Society of the U.S., Patricia Gerrior-NMFS, George Liles-NMFS, Mason Weinrich-Cetacean Research Unit, and Chris Mantzaris-NMFS

Those who provided comments but could not attend were: Russell Leaper and Anna Moscrop-IFAW, David Laist-Marine Mammal Commission, John Logan-Irving Oil Ltd, Peter Tyack-WHOI, Greg Silber-NMFS, Lindy Johnson-NOAA General Counsel, Barb Zoodsma-Georgia Dept of Natural Resources, and Jerry Conway-DFO.

The goal of the meeting was to review the three papers written and previously distributed to team members by the co-chairs on ships routing, ships speed, and voluntary measures and decide how to proceed with this issue, i.e. define a process for assessing the pros and cons of all available or potentially available management options and decide on column headings for a management option matrix to be created for each geographic area. The group agreed that the creation of this matrix was a crucial next step so that all stakeholders can better understand the benefits and limitations associated with each option and within each area.

The primary recommendations of the Subcommittee are as follows:

1. NMFS should consult with the Coast Guard to create emergency Regulated Navigation Areas (within 24 nautical miles) in areas where right whales are found in moderate to high numbers in areas of shipping traffic.
2. NMFS should develop emergency procedures in waters outside of 24 miles to protect right whales under the MMPA and to seek IMO approval as required.
3. NMFS should have the voluntary measures project put on hold pending the merging of the two papers on speed and routing (see below).
4. The two papers on speed and routing should be merged into a document to provide potential management options for each defined geographic area including the information needs, potential benefit to the animals, operational and economic impacts, and limitations associated with each of these options. The matrix headings for a given geographic area have been defined as follows: management options (list all possibilities for a given area), information needs for managers/for mariners, information available, R and D needed or ongoing, legal instruments, operational changes (ships), economic impacts (industry/community), potential environmental impacts, potential benefits (to animals), implementation and operating costs (agencies), implementation time frame. The co-chairs will plan to have this available for review by mid- to late April.
5. In order to better define the potential impacts to the industry of using routing and/or speed as a management option, GIS mapping of right whale distribution and sighting effort should be carried out, especially in the Great South Channel area.

6. Further work on assessing the level of collision risk associated with vessel speed and vessel type by incorporating whale behavior and water depth should be conducted.
7. In order to use routing and/or speed as a dynamic management option, surveillance needs to be continued and expanded geographically. At this time the mid-Atlantic region has little to no survey effort. This surveillance measure needs to have flexibility built in to respond to opportunistic sightings.
8. Preparation of ship strike investigatory guidelines and protocols should be developed for NMFS law enforcement and Coast Guard. These should be developed in conjunction with NMFS stranding personnel to recommend appropriate forensic tests and procedures.
9. A protocol for checking plankton levels at short term, high use areas should be developed to perhaps define how long the right whales may stay in a given area.
10. NMFS should conduct a force of impact analysis to assess the role of speed in severity of injuries for different vessel types.
11. NMFS should examine their policies in regard to precautionary principles and precautionary approach with respect to right whale management.
12. Under education, Joe Murphy will work with the co-chairs and Pat Gerrior to further refine ISM Code requirements, develop a bridge protocol for mariners, draft an endangered species statement for the classification societies, and develop a maritime academics training program which could be implemented worldwide.
13. Seek out industry associations and attend meetings to discuss the problem of right whales and ships, actions taken to date and actions under consideration. This is essential in preparation of a ship-strike workshop. These meetings will be attended by one or both of the co-chairs after the merging of the two papers is complete.
14. Kate Van Dine, Joe Murphy and Bruce Russell will investigate legal hooks (e.g. Coast Guard issuance of Certificates of Inspection) so that NMFS can review high-speed ferry operation under ESA section 7.
15. It was recommended that the SSSC report and white papers be provided to Take Reduction Team members. This is being coordinated by NMFS.
16. It was recommended that the Ship Strike workshop be placed on hold until the white papers and the merged paper is made available on the web. The present time frame to hold the workshop is within 6-9 months.

Summary of discussions

The focus of this meeting was to formulate a process for recommending management options to regulate ship traffic on a voluntary or mandatory basis in those areas considered to be areas at risk for right whales. These recommendations will be submitted to the Northeast Implementation Team for further review.

The co-chairs reviewed the situation to date and the reasoning behind developing the three white papers provided to the team. It was felt at prior meetings that without further understanding of the role of speed in vessel strikes and the feasibility of creating and implementing routing options, it would not be appropriate to recommend the next step. A Voluntary Measures project which had been developed at the request of NMFS and the Marine Mammal Commission was nearly complete, however, the initial scope of work had changed drastically as NMFS was not

willing to agree to the concept of a Memorandum of Understanding with the industry. It was decided by the group that voluntary measures would likely not provide enough risk reduction and that regulatory options, whether voluntary or mandatory, should be considered in the short term with continued research and development focused on potential technological solutions for the long term.

The group reviewed the definition of area at risk as proposed and presently defined by the co-chairs as an area with high density of traffic/low density of whales or high density of whales/low density of traffic or high density of both. The specific areas presently defined to be at risk are: three U.S. critical habitat areas, Canadian conservation areas, Platts Bank, Block Island Sound, Stellwagen Bank, Jeffreys Ledge, and the mid Atlantic region. These areas were visually displayed in maps provided to the group.

Discussion next focused on the need to integrate the three white papers into an integrated management (risk reduction) options matrix. The matrix headings and discussions pertaining to each are provided below:

Management tools There was considerable discussion on potential technological solutions although it was acknowledged that these solutions may take many years of experimentation and additional time to implement in a regulatory fashion. It was decided that both near term (i.e. options that could be implemented fairly quickly) and long term (options that will require considerable R&D to develop and implement) solutions need to be considered. For near term, routing and/or speed appear to be the primary options. These options could be implemented in a blanket management system or a dynamic management system. Blanket management would consist of broad areas encompassing much of the historically defined distribution of right whales and could endure for several months to bracket the time frame of known historical use of an area. The concept of a dynamic management system, whereby vessel traffic is regulated on an as needed, short duration basis would consist of more finite areas as determined by surveillance efforts and for a shorter duration based on whale movements into or out of the area. The dynamic management system was considered a potentially viable near-term and long term management option which will require further understanding of historical right whale use of various areas in a given year to define how much variability there may be within or between years. A GIS project proposed by Knowlton and Russell to explore this has been funded by IFAW.

Information needs for mariners - industry expressed the need for continued and expanded education and discussed drafting an endangered species statement for classifications societies such as the American Bureau of Shipping, and developing a course on marine mammals and avoidance protocols for maritime academies worldwide. Further work on the ISM Code and a bridge protocol for mariners was also recommended. Special emphasis throughout the meeting was placed on the need for continued and expanded surveillance in order for the short term management options to be feasible. It was noted that the mid Atlantic, especially Chesapeake Bay area, which has very high levels of ship traffic has very low surveillance and understanding of whale use of the area. The mariners need to know where the whales are in whatever way possible. It was also noted that we need additional information on when and where carcasses are struck and at what speeds and vessel types. There is considerable concern within the industry about the 13 knot speed restriction as described in the draft Speed discussion paper. This information, based on a manuscript in progress by David Laist, Amy Knowlton and others, is the best available at this time. However, the authors acknowledge that further work could be done to refine probability analyses to include whale behavior, a variety of vessel types, and varying water depths to better describe the risk involved and the level of risk reduction attainable. It was noted that slow, safe speed (around 5-8 knots) may need to be considered as a management option when transiting through finite high whale density areas..

Information needs for managers similar to information needs for mariners, managers will need to be provided result of ongoing research efforts and surveillance in order to create and implement (e.g. emergency management regulations) the most effective suite of options.

R&D needs the group felt that R&D on both short-term options and long term technological possibilities should be identified as necessary to support each management tool and should continue to be vigorously pursued. The group needs to be kept apprised of the findings of ongoing projects such as sonar detection, acoustic detection, predictive modeling, probability analyses, and GIS mapping.

Legal instruments/analysis (domestic and international) the types of legal instrument(s) needed to implement either voluntary or mandatory/dynamic or blanket regulations need to be identified. It may be that NMFS can set up a regulation to open and close an area or regulate ship's speed and other operations under the MMPA. Under this process, the areas would need to be defined, and criteria defined for regulating an area. This would go through proposed and final rule making and a listing would go into the Federal Register when and how an area would be regulated. If the process were put in place for the entire eastern seaboard, then no single port would be singled out. Other possibilities include Coast Guard emergency regulated navigation areas or a particularly sensitive sea area through the IMO. Also at issue is whether NMFS can have any jurisdiction beyond 24 miles from shore to regulate ship traffic under the MMPA.

Operational changes (on vessels) any management option considered will require operational changes by the vessels whether it be for routing or speed reduction, or a technological solution. These operational changes will have costs associated with them which will be borne by the shipping company.

Economic impacts (on industries) the operational changes taken by vessels are one type of economic impact that could be associated with a regulatory measure. There are numerous other potential impacts that need to be considered such as diversion of traffic from a particular port, intermodal aspects, and community impacts. These economic impacts are complex and need to be assessed.

Potential environmental impacts it was noted that any management option could have environmental impacts such as impacts on fishing activities or the safety of the vessel and coastline. These need to be assessed.

Potential benefits (to animals) the level of risk reduction possible by area needs to be quantified as best as possible. It was noted that although there may be many gaps in our knowledge for quantifying risk reduction, the precautionary approach should be used.

Implementation and operating costs (agencies) the implementation and operating costs to the agencies (NMFS, CG) will depend on the types of options chosen for implementation. If dynamic management is chosen, this will require a commitment to continued and expanded surveillance by NMFS. Also, since the dynamic system will require regulating on a short term basis, there will be extra costs associated with that. It will be impossible to determine for a given year how many emergency regulations will be required. There will also be costs associated with enforcement.

Implementation time frame short term management options should be considered for implementation as soon as possible. It would likely take two years to implement any sort of dynamic management system. Technological possibilities will require significant levels of R&D to determine their effectiveness and implementation will take considerable time on top of that. A time frame of 10 or so years is not unreasonable for technological solutions.

Next Steps for papers the group decided that the Voluntary Measures project should be put on hold and the remaining funds should be used to merge the two papers on speed and routing into a paper providing management options on an area by area basis as described above. The co-chairs would move quickly on this paper and have something ready for review by mid to late April.

Discussion of the precautionary approach the need for implementing the precautionary approach during this process was considered essential for ensuring the most potential benefit to the animals. A discussion on the Precautionary Approach and the protection of right whales required clarification on what the precautionary approach is.

The United Nations Convention on the Law of the Sea of 1982 provides several mechanisms for coastal states to protect marine resources. In 1992 at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, in June 1992, declared in Principle 15 of the

Rio Declaration, & In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

The precautionary approach is derived from the Precautionary Principle, which is aimed to prevent irreversible damage to the environment by implementing strict conservation measures, even in the absence of scientific evidence that environmental degradation is being caused by human intervention. The Principle implies an extreme form of regulation, with no burden of proof on the harmfulness of an activity or the effectiveness of regulation. The precautionary approach is a relaxation of this Principle, but still implies action and a burden of proof based on available science in the face of threats of an activity to the environment or marine resource.

NMFS has a policy on use of the precautionary approach in fisheries management, but no explicit policies on threats to protected marine resources.

Southeast U.S. issues duplicate meeting? industry in the southeast U.S. has not been as involved in this dialog as industry in the new England/Eastern Canada area has been. The group felt that it would be useful to organize an industry meeting in the southeast to bring them up to date on activities. Russell may try to organize this for early May to coincide with a Southeast Implementation Team meeting.

Industry workshop an industry workshop was floated as a next possible step to bring the industry on board throughout the east coast. Industry representatives suggested first putting the white papers and the upcoming merged paper on to the internet so that industry associations and foreign companies could be made aware of this issue. The next step would be for the one or both of the co-chairs to go to meetings of the Connecticut Maritime Association and other maritime association groups to announce the need for the workshop and describe the ongoing dialog. The industry agreed to help Russell compile a list of these industry associations. Once the industry is made aware of the issue, then the workshop would be more effective. It was felt that the workshop would be premature at this stage.